

### REMARKS

The Applicant has filed the present Response pursuant to 37 C.F.R. § 1.116 in reply to the outstanding Final Rejection of December 17, 2002, and the Applicant believes the Response to be fully responsive to the Final Rejection for reasons set forth below.

In the Final Rejection, the Examiner finally rejected Claims 1-8 pursuant to 37 C.F.R. §102(b), as allegedly anticipated by Low *et al.* (U.S. Patent No. 5,420,926) (hereinafter "Low"). More specifically, the Examiner alleged that the claimed coded information is disclosed by Low's pseudonym P and only the pseudonym P is presented. The Examiner further alleged that the "zero-knowledge" system was not defined so as to exclude the public key encryption systems (e.g., Low's system). The Examiner further alleged that public key encryption systems are interactive proof systems based on challenge and response. Lastly, the Examiner finally rejected Claims 1-8 pursuant to 35 U.S.C. §103(a), as allegedly unpatentable over a combination of Low in view of Goldwasser, *et al.* (U.S. Patent No. 4,926,479) (hereinafter "Goldwasser"). More specifically, the Examiner alleged that although Low may perhaps not be considered a zero-knowledge system, Goldwasser teaches a zero-knowledge system that may be used with credit cards and it would be obvious to one skilled in the art to combine Goldwasser and Low to accomplish the purposes of Low's anonymous credit card system.

The Applicant respectfully disagrees with the Examiner's allegations regarding Claims 1-8 pursuant to 35 U.S.C. §102(b), and as a consequence, the Applicant proffers the following distinguishing arguments in support of their patentability over the primary reference Low.

Insofar as rejections pursuant to 35 U.S.C. §102(b) are concerned, it is axiomatic that anticipation pursuant to §102(b) requires that the prior art reference disclose each and every element of the claim to which it is applied. In re King, 801 F.2d 1324, 1326 (Fed. Cir. 1986). Thus, there must be no differences between the subject matter of the claim and the disclosure of the applied prior art reference. Stated another way, the prior art reference must contain within its four corners adequate direction to practice the invention as claimed. A corollary to the aforementioned rule, which is equally applicable, states that the absence from the applied prior art reference of any claimed element negates anticipation. Kloster Speedsteel AB v. Crucible Inc., 793 F.2d 1565, 1571 (Fed. Cir. 1986).

In traversing the rejections of Claims 1-8 (claims 1, 4 and 8 being independent) pursuant to 35 U.S.C. §102(b), the Applicant respectfully submits that the primary reference to Low is defective in that it fails to disclose each and every element of the claimed invention. More specifically, Low fails to disclose a sales system comprising a credit card verification device possessed by a business, the credit card verification device comprising a zero-knowledge verification unit based on a zero-knowledge verification system for verifying the credit card containing coded information based on the zero-knowledge verification system, as particularly recited in the independent Claims 1, 4 and 8. The Applicant first respectfully submits that Low discloses a totally different system from the claimed sales system. Contrary to the claimed sales system, in which a zero-knowledge verification device comprising a zero-knowledge verification unit based on a zero-knowledge verification system at the business verifies the credit card and the business after verifying the credit card via the zero-knowledge verification device

supplies goods to the cardholder, Low's credit card purchasing device at the business S 245 does not verify the credit card (See Low Col. 3, line 62 – Col. 4, line 6). In fact, Low requires the intermediary communications exchange cx 227, which acts as a conduit to receive a fund transfer request message 233 from the credit card purchase device at the business S 245 and to send a fund transfer request message 234 to the bank Bp, which uses the account number (i.e., pseudonym P) for Customer 231 at bank Bp to transfer funds to Bank Bs associated with the business. Even further, Bank Bp does not verify the credit card, but only transfers funds from a requested account P to Bank Bs associated with the business. Consequently, the Applicant respectfully submits that at least for the foregoing reasons Low fails to disclose the claimed sales system, i.e., failing to disclose that its credit card purchase device at the business S 245 verifies the credit card.

In further traversing the rejections of Claims 1-8 pursuant to 35 U.S.C. §102(b), the Applicant further respectfully submits that Low does not disclose presenting coded information of the cardholder to the business without presenting personal information (i.e., credit card number). More specifically, the Examiner has alleged that pseudonym P is the coded information. The Applicant respectfully disagrees. At Col. 3, line 67 - Col. 4, line 1, Low specifies that the anonymous credit card contains a specification of bank Bp and the pseudonym P 234. This information (Bp, P) is presented to the credit card purchasing device at Low's business S 245 for making a purchase. The specification of the bank Bp and the pseudonym P represent personal information (e.g., credit card number). The Applicant respectfully submits that the pseudonym P cannot be considered the claimed coded information because pseudonym P specifies an actual account at an actual bank Bp, which transfers funds to bank Bs based

on a request from the credit card purchase device at business S 245. If this information (Bp, P) is pilfered by the business S 245, illegal purchases can be made on customer C's 231 account P at bank Bp. To the contrary of Low, the claimed invention prevents personal information (credit card number) from being presented to the business. Consequently, the Applicant respectfully submits that the specification Bp and pseudonym P represent personal information.

In view of the foregoing, the Applicant respectfully requests the Examiner to withdraw the rejections of independent Claims 1, 4 and 8 pursuant to 35 U.S.C. §102(b). Furthermore, the Applicant respectfully requests the Examiner to withdraw rejections of the dependent Claims 2-3 and 5-7, based on their respective dependencies from the independent Claim 1 and 4.

The Applicant further respectfully disagrees with the Examiner's allegations regarding Claims 1-8 pursuant to 35 U.S.C. §103(a), and as a consequence, the Applicant proffers the following distinguishing arguments in support of their patentability over the combination of Low and Goldwasser.

Insofar as rejections pursuant to 35 U.S.C. §103(a) are concerned, the Federal Circuit in In re Fritch, 972 F.2d 1260, 1266 (Fed. Cir. 1992) has annunciated that "[t]he mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification" (emphasis added). Furthermore, the annunciated principle requires that the prior art suggest modifying the teachings of the references so as to produce the claimed invention. Id. At the time the invention is made, there must be reason apparent to a skilled artisan for applying the teachings of the reference or else the

use of such teachings will be improper hindsight. In re Noyima, 184 USPQ 607 (C.C.P.A. 1975). Additionally, the Examiner cannot establish obviousness by locating references which describe various aspects of an invention without also providing evidence of the motivating force which would impel the skilled artisan to do what the applicant has done. Ex Parte Levengood, 28 USPQ 2d 1330, 1302 (Bd. Pt. App. & Int'f. 1993).

In traversing the rejections of Claims 1-8 pursuant to 35 U.S.C. §103(a), the Applicant respectfully submits the arguable Low-Goldwasser combination is defective in that it fails to teach or suggest the claimed invention. More specifically, the combination fails to teach or suggest a sales system comprising: a credit card verification device possessed by a business, the credit card verification device comprising a zero-knowledge verification unit based on a zero-knowledge verification system for verifying the credit card containing coded information based on the zero-knowledge verification system; and a sales transaction in which the cardholder presents the coded information of the credit card to the business without presenting personal information of the cardholder, as particularly recited in the independent Claims 1, 4 and 8. More specifically, even if *arguendo* the references were combined as suggested by the Examiner, the credit card purchasing device at business S 245 still would not verify the credit card presented to the business. In addition, if the Bp and pseudonym P (personal information) are not provided to the credit card purchasing device of the business S 245 because they represent personal information to the customer C 231, and instead coded information unique to the customer is presented to the business S 245, Low would fail to operate as intended. That is Low's intended operation would be destroyed i.e., Low requires Bp and P be presented to the

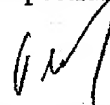
business S 245. Consequently, the Applicant respectfully submits the combination of Low-Goldwasser does not teach or suggest the invention as particularly claimed in Claims 1, 4 and 8.

In further traversing the rejections of Claims 1-8 pursuant to 35 U.S.C. §103(a), the Applicant respectfully submits there is no motivation to combine the references as alleged by the Examiner. More specifically and notwithstanding the fact that Goldwasser discloses that its teachings may be used with credit cards (See Goldwasser Col. 1, lines 51-52), the Applicant respectfully submits that neither Goldwasser nor Low provides any motivation to modify or substitute Low's credit card purchasing device at the business S 245 with Goldwasser's zero-knowledge system. Furthermore, the Applicant respectfully submits that even if *arguendo* one skilled in the art were to modify or substitute Low's credit card purchase device with Goldwasser's zero-knowledge system, the skilled artisan would not be able to make the claimed invention because Low would fail to operate as intended, as particularly argued hereinabove.

In view of the foregoing, the Applicant respectfully requests the Examiner to withdraw the rejections of independent Claims 1, 4 and 8 pursuant to 35 U.S.C. §103(a). Furthermore, the Applicant respectfully requests the Examiner to withdraw rejections of dependent Claims 2-3 and 5-7, based on their respective dependencies from the independent Claim 1 and 4.

In view of the foregoing, the Applicant believes that the above-identified application is in condition for allowance and henceforth respectfully solicits the allowance of the application. If the Examiner believes a telephone conference might expedite the allowance of this application, the Applicant respectfully requests that the Examiner call the undersigned, Applicant's attorney, at the following telephone number: (516) 742-4343.

Respectfully submitted,



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